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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 March 2008</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-9 and 11-23</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-9,11-23</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communication filed on 3/27/2008. Claims 1-9,11-23

are subject to examination.

2. Dependent claim 10 has been cancelled.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1,9,13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply

with the written description requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention.

As per claims 1,9,13, it states "..**to redirect without arbitration** the data

received from the OS to the remote user". Nowhere in the specification does it state "to

redirect without arbitration". Therefore the claim language is not supported by the

specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-9,11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vachon et al. U.S. Patent Publication # 2002/0078404 (hereinafter Vachon) in view of Ito et al. U.S. Patent # 6,963,817 (hereinafter Ito)

As per claim 1, Vachon teaches a remote management controller, comprising:

-an external communication interface (Fig. 1 element 106) adapted to receive data from a remote user (Fig. 5 element "target computer") (Paragraph 33);

Vachon teaches serial bus such as IEEE 1394 serial bus adapted to receive data from target computer

-an input/output processor (IOP) adapted to: receive data from external communication interface (Paragraph 33); and

Vachon teaches host computer receives data from the serial bus of the content of the target computer.

-transmit data corresponding to the data received from the external communication interface to an operating system (OS) of a managed server (Paragraph 36)(Paragraph 38); and

Vachon teaches sending the data via serial bus interface the data received from the target computer to the host computer and the debugger run by the operating system.

Vachon is silent in teaching a virtual communication device (VCD) interface adapted to: intercept data received from the OS, the VCD interface comprising a pre-defined standard communication interface, the data received from the OS being intended for specific communication interface, and to redirect without arbitration the

data received from the OS to the remote user via the external communication interface

instead of redirecting the data received from the OS to the specific communication

interface

Ito teaches a virtual communication device (VCD) (microprocessor) interface

adapted to: intercept data received from the OS (column 12 lines 25-28), the VCD

interface comprising a pre-defined standard communication interface, the data received

from the OS being intended for specific communication interface (column 12 lines 62-

67, lines 1-5), and to redirect without arbitration the data received from the OS to the

remote user via the external communication interface instead of redirecting the data

received from the OS to the specific communication interface (column 12 lines 6-12,

lines 25-32)(Fig. 7)(Fig. 8)

Ito teaches microprocessor (virtual communication device) intercepting data from

the operating system, the data may be sent to UART3 (specific communication

interface), and is redirected to the remote computer via modem (external

communication interface).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of applicant's invention was made to implement Ito's teaching in Vachon's teaching to

come up with redirecting data to the remote user through modem and UART2 (external

communication) instead of redirecting data to specific communication interface (i.e.

UART3). The motivation for doing so would be so that the data can be stored remotely

to have a back-up system and also security reasons (column 11 lines 43-45)

As per claim 2, Vachon and Ito teaches the remote server management controller of claim 1, but Ito further teaches wherein the specific communication interface is a UART interface of the managed server (Fig. 3 element "UART interface")(column 12 lines 25-32)

As per claim 3, Vachon and Ito teaches the remote server management controller of claim 1, but Vachon further teaches wherein the specific communication interface is a USB host controller of the managed server (Paragraph 26)

As per claim 4, Vachon and Ito teaches the remote server management controller of claim 1, but Vachon further teaches wherein data received from the user over the external communication interface is transmitted to the OS of the managed server (Paragraph 36)(Paragraph 38). Vachon fails to teach transmitting data via a UART interface. Ito teaches transmitting data over UART interface (column 12 lines 25-32). Therefore it would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Ito's teaching in Vachon's teaching to come up with transmitting data over UART interface. The motivation for doing so that UART will condition the signal to be accepted by the microprocessor i.e. the virtual communication device (column 11 lines 65-66).

As per claim 5, Vachon and Ito teaches the remote server management controller of claim 1, but Vachon further teaches, wherein data received from the user over the external communication interface is transmitted to the OS of the managed server (Paragraph 36)(Paragraph 38) via a USB interface (Paragraph 26).

As per claim 6, Vachon and Ito teaches the remote server management controller of claim 1, but Vachon further teaches, the specific communication interface is a 1394 interface of the managed server (Paragraph 33)(Paragraph 36).

As per claim 7, Vachon and Ito teaches the remote server management controller of claim 1, but Vachon further teaches, wherein data received from the user over the external communication interface is transmitted to the OS of the managed server via a 1394 interface (Paragraph 33)(Paragraph 36)

As per claim 8, Vachon teaches the remote server management controller of claim 1, but Ito further teaches wherein the external communication interface is an Ethernet interface (Fig. 7 and 8 element 316) (column 12 lines 25-32).

As per claim 9, Vachon teaches a remote server management controller, comprising:

-an input/output processor (IOP) adapted to monitor interrupt data transmitted from a super I/O (SIO) to a southbridge , to alter the interrupt data transmitted from the SIO based on input received from an external user via an external communication interface (Paragraph 33) and to transmit the altered interrupt data to a managed server (Paragraph 36)(Paragraph 38); and

Vachon fails to teach a virtual communication device (VCD) that comprises a predefined standard communication interface, the VCD being adapted to: intercept responsive data intended to be transmitted to the SIO in response to the altered interrupt data; the responsive data being in a format that is not compatible with the first communication protocol; and prevent the responsive data from reaching the SIO; format

the responsive data for transmission; and redirect without arbitration the formatted data

to the external communication interface.

Ito teaches a virtual communication device (VCD) (Fig. 7 element 306 or Fig. 8

element 322) that comprises a predefined standard communication interface (UART

interface), the VCD being adapted to: intercept responsive data intended to be

transmitted to the SIO in response to the altered interrupt data (column 12 lines 62-67,

lines 1-5); the responsive data being in a format that is not compatible with the first

communication protocol; and prevent the responsive data from reaching the SIO; format

the responsive data for transmission; and redirect without arbitration the formatted data

to the external communication interface (column 12 lines 6-12, lines 25-32)(Fig. 7)(Fig.

8)

Therefore it would have been obvious to one of ordinary skill in the art at the time

of applicant's invention was made to implement Ito's teaching in Vachon's teaching to

come up with redirecting data to the remote user through modem instead of redirecting

data to specific communication interface (i.e. UART). The motivation for doing so would

be so that the data can be stored remotely to have a back-up system and also security

reasons (column 11 lines 43-45)

As per claim 11, Vachon teaches the remote server management controller of

claim 9 wherein the input received from the external user is adapted to emulate an

interrupt generated by a device in the managed server (Paragraph 38)(Paragraph 39.

As per claim 12, Vachon teaches the remote server management controller of claim 9, but Ito further teaches wherein the external communication interface is an Ethernet interface (Fig. 7 element 316, Fig. 8 element 332)

As per claim 13, Vachon teaches a method of remotely retrieving data from an operating system (OS), the method comprising the acts of:

-receiving a request for OS information from a remote user (Paragraph 33)(Paragraph 35)(Paragraph 36);

- transmitting the request for OS information to the OS via a virtual communication device (VCD) comprising a pre-defined standard communication interface (Paragraph 36)(Paragraph 38); and

Vachon fails to teach receiving via the VCD interface data responsive to the act of transmitting the request to the OS, the data being intended for a specific communication interface; formatting the responsive data for transmission and; redirecting without arbitration the formatted data to the external communication interface.

Ito teaches transmitting the request for OS information to the OS via a virtual communication device (VCD) comprising a pre-defined standard communication interface (column 10 lines 43-47, lines 64-67); receiving via the VCD interface data responsive to the act of transmitting the request to the OS, the data being intended for a specific communication interface (column 12 lines 62-67, lines 1-5), formatting the responsive data for transmission and; redirecting without arbitration the formatted data

to the external communication interface (column 12 lines 6-12, lines 25-32)(Fig. 7)(Fig. 8)

Therefore it would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Ito's teaching in Vachon's teaching to come up with redirecting data to the remote user through modem instead of redirecting data to specific communication interface (i.e. UART). The motivation for doing so would be so that the data can be stored remotely to have a back-up system and also security reasons (column 11 lines 43-45)

As per claim 14, Vachon and Ito teaches the method of claim 13, but Ito further teaches wherein the specific communication interface is a UART interface (column 12 lines 25-32)(Fig. 7,8).

As per claim 15, Vachon and Ito teaches the method of claim 13, but Vachon further teaches wherein the specific communication interface is a USB interface (Paragraph 27).

As per claim 16, Vachon and Ito teaches the method of claim 13, but Vachon further teaches wherein the specific communication interface is a 1394 interface (Paragraph 33)(Paragraph 36)

As per claim 17, Vachon and Ito teaches the method of claim 13, but Ito further teaches further comprising the act of enabling an Ethernet interface to receive the request for OS information (column 12 lines 25-32)

As per claim 18, Vachon and Ito teaches the method of claim 13, but Vachon further comprising the act of initiating an out-of-band management communication session (Paragraph 36)(Paragraph 38)(Paragraph 39).

As per claim 19, Vachon and Ito teaches the method of claim 13, but Vachon further comprising the act of enabling a VCD to transmit the request for OS information to the OS (column 10 lines 43-47, lines 64-67);

As per claim 20, Vachon and Ito teaches the method of claim 13, but Vachon wherein the recited acts are performed in the recited order (Paragraph 38)(Paragraph 39)

As per claim 21, Vachon and Ito teaches the remote server management controller of claim 1, but Vachon further teaches pre-defined communication interface comprises a USB interface (Paragraph 26)

As per claim 22, Vachon and Ito teaches the remote server management controller of claim 9, but Vachon further teaches, pre-defined communication interface comprises a USB interface (Paragraph 26)

As per claim 23, Vachon and Ito teaches the remote server management controller of claim 13, but Vachon further teaches pre-defined communication interface comprises a comprises a USB interface (Paragraph 26).

Claims 1-2,4,8,9,11-14,17,-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krontz et al. U.S. Patent # 5,790,895 (hereinafter Krontz) in view of Ito et al. U.S. Patent # 6,963,817 (hereinafter Ito)

As per claim 1, Krontz teaches a remote server management controller (Fig. 2

element "Integrated Remote Console"), comprising:

-an external communication interface (Fig. 1A element 149) adapted to receive

data from a remote user (column 9 lines 52-56);

The reference teaches the modem (external communication interface) receives

serial data from remote computer and communicates the serial data to the UART.

-an input/output processor (IOP) adapted to:

-receive data from external communication interface (column 9 lines 52-

56)(column 10 lines 46-64); and

The reference teaches the input/output processor (IOP) receives data from the

modem (external communication interface).

-transmit data corresponding to the data received from the external

communication interface to an operating system (OS) of a managed server (column 10

lines 55-67)(column 11 lines 1-9, lines 26-45)(column 12 lines 17-36,54-64); and

The reference teaches sending the resource data to the operating system of the

server and the Virtual communication port of the device intercepts the data. The data is

sent to the remote computer (remote user) via the modem (external communication

port) to the operating system.

-a virtual communication device (VCD) (Fig. 2 element 200) interface adapted to

(column 11 lines 40-44):

-intercept data received from the OS, the VCD interface comprising a pre-defined

standard communication interface, the data received from the OS being intended for

specific communication interface (column 10 lines 55-67)(column 11 lines 1-9, lines 26-45), and to redirect the data received from the OS to the remote user via the external communication interface instead of redirecting the data received from the OS to the specific communication interface (column 10 lines 55-67)(column 11 lines 1-9, lines 26-45)(column 12 lines 17-36) (column 12 lines 49-67);

The reference teaches sending the resource data to the operating system of the server and the Virtual communication port of the device intercepts the data. The data is directly received by the operating system without the arbitrator and the data is directly to the remote computer (remote user) from the operating system via the modem (external communication port). The reference also teaches the virtual communication device comprises pre-defined standard communication interface as COM1 through COM4 (column 10 lines 55-67)(column 11 lines 1-9, lines 26-31).

Krontz does not explicitly show to redirect without arbitration the data received from the OS to the remote user via the external communication interface instead of redirecting the data received from the OS to the specific communication interface.

Ito teaches a virtual communication device (VCD) (microprocessor) interface adapted to: intercept data received from the OS (column 12 lines 25-28), the VCD interface comprising a pre-defined standard communication interface, the data received from the OS being intended for specific communication interface (column 12 lines 62-67, lines 1-5), and to redirect **without arbitration** the data received from the OS to the remote user via the external communication interface instead of redirecting the data

received from the OS to the specific communication interface (column 12 lines 6-12,

lines 25-32)(Fig. 7)(Fig. 8)

Ito teaches microprocessor (virtual communication device) intercepting data from

the operating system, the data may be sent to UART3 (specific communication

interface), and is redirected to the remote computer via modem (external

communication interface).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of applicant's invention was made to implement Ito's teaching in Krontz's teaching to

come up with redirecting data to the remote user through modem and UART2 (external

communication) instead of redirecting data to specific communication interface (i.e.

UART3). The motivation for doing so would be so that the data can be stored remotely

to have a back-up system and also security reasons (column 11 lines 43-45).

As per claim 2, Krontz and Ito teaches the remote server management controller

of claim 1, but Krontz further teaches wherein the specific communication interface is a

UART interface of the managed server (column 10 lines 44-64).

As per claim 4, Krontz and Ito teaches the remote server management controller

of claim 1, but Krontz further teaches wherein data received from the user over the

external communication interface is transmitted to the OS of the managed server via a

UART interface. (Column 10 lines 47-64)

As per claim 8, Krontz and Ito teaches the remote server management controller

of claim 1, but Krontz further teaches wherein the external communication interface is

an Ethernet interface. (column 9 lines 49-56) (column 10 lines 44-47) (Fig. 1a element

149)(Column 11 lines 52-59)

The reference teaches communication takes place using a modem, which also

works, as an Ethernet interface.

As per claim 9, Krontz teaches a remote server management controller,

comprising:

-an input/output processor (IOP) adapted to monitor interrupt data transmitted

from a super I/O (SIO) to a southbridge (column 9 lines 25-34), to alter the interrupt data

transmitted from the SIO based on input received from an external user via an external

communication interface (column 12 lines 17-36, lines 54-64) and to transmit the altered

interrupt data to a managed server (column 10 lines 47-64)(column 9 lines 25-56); and

-a virtual communication device (VCD) that comprises a predefined standard

communication interface (column 10 lines 55-67)(column 11 lines 1-9, lines 26-31), the

VCD being adapted to:

-intercept responsive data intended to be transmitted to the SIO in response to

the altered interrupt data (column 10 lines 55-67)(column 11 lines 1-9, lines 26-

45)(column 12 lines 17-36), the responsive data being in a format that is not compatible

with the first communication protocol (column 12 lines 54-67); and

-prevent the responsive data from reaching the SIO (column 10 lines 26-43);

The reference teaches the virtual communication port (VCD) to intercept the

accesses (data) and prevents it from reaching the SIO.

-format the responsive data for transmission (column 12 lines 54-63)(column 10 lines 47-64); and

The reference teaches remote computer senses that connection in regards to data has not been established and retransmits and redirects it again through the protocols (format the data) therefore gobbling of data changed therefore the data has been transmitted.

-redirect the formatted data to the external communication interface (column 12 lines 49-67).

The reference teaches redirect the data to the operating system and received by the operating system without the arbitrator and the data is formatted because the data in the packet has went through the analysis directly to the remote computer (remote user) from the operating system via the modem (external communication port).

Ito teaches a virtual communication device (VCD) (Fig. 7 element 306 or Fig. 8 element 322) that comprises a predefined standard communication interface (UART interface), the VCD being adapted to: intercept responsive data intended to be transmitted to the SIO in response to the altered interrupt data (column 12 lines 62-67, lines 1-5); the responsive data being in a format that is not compatible with the first communication protocol; and prevent the responsive data from reaching the SIO; format the responsive data for transmission; and redirect **without arbitration** the formatted data to the external communication interface (column 12 lines 6-12, lines 25-32)(Fig. 7)(Fig. 8)

Therefore it would have been obvious to one of ordinary skill in the art at the time

of applicant's invention was made to implement Ito's teaching in Vachon's teaching to

come up with redirecting data to the remote user through modem instead of redirecting

data to specific communication interface (i.e. UART). The motivation for doing so would

be so that the data can be stored remotely to have a back-up system and also security

reasons (column 11 lines 43-45)

As per claim 11, Krontz and Ito teaches the remote server management

controller of claim 9, but Krontz further teaches wherein the input received from the

external user is adapted to emulate an interrupt generated by a device in the managed

server (column 10 lines 24-46).

As per claim 12, Krontz and Ito teaches the remote server management

controller of claim 9, but Krontz further teaches wherein the external communication

interface is an Ethernet interface (column 9 lines 49-56) (column 10 lines 44-47) (Fig. 1a

element 149)(Column 11 lines 52-59)   The reference teaches communication takes

place using a modem which also works as an Ethernet interface.

As per claim 13,Krontz teaches a method of remotely retrieving data from an

operating system (OS), the method comprising the acts of:

-receiving a request for OS information from a remote user (column 12 lines 17-

36, lines 54-64);

-transmitting the request for OS information to the OS via a virtual

communication device (VCD) comprising a pre-defined standard communication

interface (column 10 lines 55-67)(column 11 lines 1-9, lines 26-45)(column 12 lines 54-64); and

The reference teaches sending the resource data to the operating system of the server and the Virtual communication port of the device intercepts the data. The data is sent to the remote computer (remote user) via the modem (external communication port) to the operating system.

-receiving via the VCD interface data responsive to the act of transmitting the request to the OS, the data being intended for a specific communication interface (column 10 lines 55-67)(column 11 lines 1-9, lines 26-45)(column 12 lines 17-36)(column 12 lines 54-67);

-formatting the responsive data for transmission (column 12 lines 54-63); and

The reference teaches remote computer senses that connection in regards to data has not been established and retransmits and redirects it again through the protocols (format the data) therefore gobbling of data changed therefore the data has been transmitted.

-redirecting the formatted data to the external communication interface (column 12 lines 49-67).

The reference teaches redirect the data to the operating system and received by the operating system without the arbitrator and the data is formatted because the data in the packet has went through the analysis directly to the remote computer (remote user) from the operating system via the modem (external communication port).

Ito teaches transmitting the request for OS information to the OS via a virtual

communication device (VCD) comprising a pre-defined standard communication

interface (column 10 lines 43-47, lines 64-67); receiving via the VCD interface data

responsive to the act of transmitting the request to the OS, the data being intended for a

specific communication interface (column 12 lines 62-67, lines 1-5), formatting the

responsive data for transmission and; redirecting without arbitration the formatted data

to the external communication interface (column 12 lines 6-12, lines 25-32)(Fig. 7)(Fig.

8)

Therefore it would have been obvious to one of ordinary skill in the art at the time

of applicant's invention was made to implement Ito's teaching in Vachon's teaching to

come up with redirecting data to the remote user through modem instead of redirecting

data to specific communication interface (i.e. UART). The motivation for doing so would

be so that the data can be stored remotely to have a back-up system and also security

reasons (column 11 lines 43-45)

As per claim 14, Krontz and Ito teaches the method of claim 13, but Krontz

further teaches wherein the specific communication interface is a UART interface

(column 10 lines 44-64).

As per claim 17, Krontz and Ito teaches the method of claim 13, but Krontz

further teaches comprising the act of enabling an Ethernet interface to receive the

request for OS information (column 10 lines 44-64).

As per claim 18, Krontz and Ito teaches the method of claim 13, but Krontz

further teaches comprising the act of initiating an out-of-band management

communication session (column 11 lines 25-45)(column 10 lines 46-64).

As per claim 19, Krontz and Ito teaches the method of claim 13, but Krontz

further teaches comprising the act of enabling a VCD to transmit the request for OS

information to the OS (column 11 lines 35-51)(column 12 lines 57-60).

As per claim 20, Krontz and Ito teaches the method of claim 13, but Krontz

further teaches wherein the recited acts are performed in the recited order (column 10

lines 44-64)(column 11 lines 25-51)(column 12 lines 57-60).

Claims 3,5-7,15-16,21-23 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Krontz et al. U.S. Patent # 5,790,895 (hereinafter Krontz) Ito et

al. U.S. Patent # 6,963,817 (hereinafter Ito) further in view of Vachon et al. U.S.

Patent Publication # 2002/0078404 (hereinafter Vachon)

As per claim 3, Krontz and Ito teaches the remote server management controller

of claim 1, but fails to teach wherein the specific communication interface is a USB host

controller of the managed server. Vachon teaches the specific communication interface

is a USB host controller of the manager server. (Paragraph 26). It would have been

obvious to one of ordinary skill in the art at the time of applicant's invention to implement

Vachon's invention in Krontz and Ito's invention to come up with specific communication

interface as USB host controller. The motivation for doing so would have been because

USB interface supports variety of peripheral devices using the USB host controller.

 (Paragraph 26)

As per claim 5, Krontz and Ito teaches the remote server management controller of claim 1, wherein data received from the user over the external communication interface is transmitted to the OS of the managed server but fails to teach via a USB interface. Vachon teaches using USB interface to transmit data to the server (Paragraph 26). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Vachon's invention in Krontz and Ito's invention to come up with using USB interface to transmit data to the server. The motivation for doing so would have been because USB interface supports variety of peripheral devices using the USB host controller.

As per claim 6, Krontz and Ito teaches the remote server management controller of claim 1, but fails to teach the specific communication interface is a 1394 interface of the managed server. Vachon teaches the specific communication interface is 1394 interface (Paragraph 27). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Vachon's invention in Krontz and Ito's invention to come up specific communication interface as 1394 interface. The motivation for doing so would have been to because it provides faster data transmission compare to other communication interfaces.

As per claim 7, Krontz and Ito teaches the remote server management controller of claim 1, wherein data received from the user over the external communication interface is transmitted to the OS of the managed server but fails to teach via a 1394 interface. Vachon teaches the transmitting data to the server using 1394 interface (Paragraph 27). It would have been obvious to one of ordinary skill in the art at the time

of applicant's invention to implement Vachon's invention in Krontz and Ito's invention to come up with using 1394 interface to transmit data to the server. The motivation for doing so would have been because it provides faster data transmission compare to other communication interfaces.

As per claim 15, Krontz and Ito teaches the method of claim 13 but fails to teach wherein the specific communication interface is a USB interface. Vachon teaches the specific communication interface is a USB interface (Paragraph 26). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Vachon's invention in Krontz and Ito's invention to come up with using USB interface. The motivation for doing so would have been because USB interface supports variety of peripheral devices using the USB host controller.

As per claim 16, Krontz and Ito teaches the method of claim 13 but fails to teach wherein the specific communication interface is a 1394 interface. Vachon teaches the specific communication interface is 1394 interface (Paragraph 27). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Vachon's invention in Krontz and Ito's invention to come up specific communication interface as 1394 interface. The motivation for doing so would have been to because it provides faster data transmission compare to other communication interfaces.

As per claim 21, Krontz and Ito teaches the remote server management controller of claim 1, but fails to teach pre-defined communication interface comprises a USB interface. Vachon teaches pre-defined communication interface comprises a USB interface (Paragraph 26). It would have been obvious to one of ordinary skill in the art

at the time of applicant's invention to implement Vachon's invention in Krontz and Ito's

invention to come up with using USB interface. The motivation for doing so would have

been because USB interface supports variety of peripheral devices using the USB host

controller and also one does not have to reconfigure the USB interface when using from

one operating system to another.

As per claim 22, Krontz and Ito teaches the remote server management

controller of claim 9, but fails to teach pre-defined communication interface comprises a

USB interface. Vachon teaches standard communication interface comprises a USB

interface (Paragraph 26). It would have been obvious to one of ordinary skill in the art

at the time of applicant's invention to implement Vachon's invention in Krontz and Ito's

invention to come up with using USB interface. The motivation for doing so would have

been because USB interface supports variety of peripheral devices using the USB host

controller and also one does not have to reconfigure the USB interface when using from

one operating system to another.

As per claim 23, Krontz and Ito teaches the method of claim 13, but fails to teach

pre-defined communication interface comprises a comprises a USB interface. Vachon

teaches standard communication interface comprises a USB interface (Paragraph 26).

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to implement Vachon's invention in Krontz and Ito's invention to come up with

using USB interface. The motivation for doing so would have been because USB

interface supports variety of peripheral devices using the USB host controller and also

one does not have to reconfigure the USB interface when using from one operating

system to another.

Response to Arguments

Applicant's arguments filed 3/27/2008 have been fully considered but they are

not persuasive.

A). Applicant states Vachon fails to teach "transmitting data corresponding to the

data received from the external communication interface to an operating system (OS) of

a managed server"

B). Applicant states Ito does not teach "intercept data intended for a specific

communication interface and redirecting of that data to the external communication

interface".

C). Applicant states Krontz and Ito combination would not be functional since

Krontz reference employs using arbitration and the claim language states without using

arbitration.

As per remark A, Examiner respectfully disagrees with the applicant because in

Paragraph 36, 38, Vachon teaches sending the data via serial bus interface the data

received from the target computer to the host computer and the debugger run by the

operating system. In Paragraph 3, Vachon clearly states that a crash dump file is

generated by the operating system of the computer. Therefore, the serial bus interface

sends the data to the host computer and to the debugger which is generated by the

operating system, which means the data is transmitted by the external communication

interface to the operating system of the server. Therefore Vachon teaches the claimed limitations.

As per remark B, Examiner respectfully disagrees with the applicant because in column 11 lines 61-67, column 12 lines 1-5, Ito teaches microprocessor intercepts the signal (i.e. data) from the operating system, and forwards the reading to the UART which in turn the data is channeled to the RS232C to the remote user via wireless modem through Ethernet interface (external interface). In column 9 lines 41-47, Ito teaches operating system receiving the data which are then forwarded to the remote user through the UART to microprocessor and to wireless modem and through Ethernet interface to the remote computer. Therefore it means that data is sent to the UART interface in the first place (which can be interpreted as data intended for specific communication interface) which is then forwarded to the wireless modem and to the remote user. Ito does not specifically states that transmitting data through Ethernet interface, but it obvious to one of ordinary skill in the art, that since the data is sent through the wireless modem to the remote computer, it is sent through the Ethernet interface since modem uses Ethernet Interface to sent data. Therefore Ito teaches the claimed limitations.

As per remark C, Examiner respectfully disagrees with the applicant because according the specification of the current applicant states "data intercepted by the VCD may be redirected to a remote user *via* the Ethernet interface". Specification of the current application does not state that "data intercepted by the VCD may be redirected *"directly" or "without arbitration"* to a remote user *via* the Ethernet interface". These

are two different things. The claim language states "to redirect without arbitration the

data received from OS to the remote user *via* the external communication interface".

Examiner point out that the claim limitation is not in the specification of the current

application. Applicant states since without arbitration is a negative limitation it does not

require literal basis, but Examiner states since the specification does not specify if the

data is redirected "directly" to a remote user, instead it states "*via*" Ethernet interface to

a remote user. It states that data is redirected *via* Ethernet interface. According to the

dictionary meaning of via it means "by a route that touches or passes through" or "by

way of", this means that data is passed by a way of or by a route though the Ethernet

interface. It does not state "*directly*" to the remote user through the Ethernet interface.

Therefore Krontz reads on the claim limitations.

Examiner agrees Krontz does not explicitly show to redirect without arbitration

the data received from the OS to the remote user via the external communication

interface instead of redirecting the data received from the OS to the specific

communication interface.

Ito teaches a virtual communication device (VCD) (microprocessor) interface

adapted to: intercept data received from the OS (column 12 lines 25-28), the VCD

interface comprising a pre-defined standard communication interface, the data received

from the OS being intended for specific communication interface (column 12 lines 62-

67, lines 1-5), and to redirect **without arbitration** the data received from the OS to the

remote user via the external communication interface instead of redirecting the data

received from the OS to the specific communication interface (column 12 lines 6-12,

lines 25-32)(Fig. 7)(Fig. 8)

Ito teaches microprocessor intercepts the signal (i.e. data) from the operating

system, and forwards the reading to the UART which in turn the data is channeled to

the RS232C to the remote user via wireless modem through Ethernet interface (external

interface). In column 9 lines 41-47, Ito teaches operating system receiving the data

which are then forwarded to the remote user through the UART to microprocessor and

to wireless modem and through Ethernet interface to the remote computer. Therefore it

means that data is sent to the UART interface in the first place (which can be

interpreted as data intended for specific communication interface) which is then

forwarded to the wireless modem and to the remote user. Ito does not specifically

states that transmitting data through Ethernet interface, but it obvious to one of ordinary

skill in the art, that since the data is sent through the wireless modem to the remote

computer, it is sent through the Ethernet interface since modem uses Ethernet Interface

to sent data. Therefore it would have been obvious to one of ordinary skill in the art at

the time of applicant's invention was made to implement Ito's teaching in Krontz's

teaching to come up with redirecting data to the remote user through modem and

UART2 (external communication) instead of redirecting data to specific communication

interface (i.e. UART3). The motivation for doing so would be so that the data can be

stored remotely to have a back-up system and also security reasons (column 11 lines

43-45). Furthermore the combination of the Krontz and Ito is proper based on same

embodiment methodology states in the specification of the current application.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A). "Transparent keyboard hot plug" by Emerson et al. U.S. Patent # 5,898,861.

B). "Modem Sharing" by Vachon et al. U.S. Patent # 5,790,895.

4. A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the applicant (see 35 U.S.C 133, M.P.E.P 710.02, 710.02(b)).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dhairya A. Patel whose telephone number is 571-272-5809. The examiner can normally be reached on 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAP

/Ashok B. Patel/

Primary Examiner, Art Unit 2154